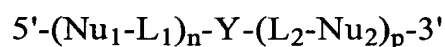


This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

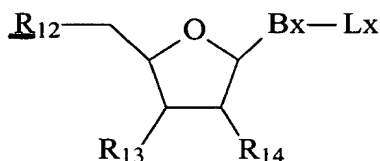
1- 22. (Canceled).

23. (Currently Amended) An oligomeric compound of the formula:



wherein:

each Nu₁ and Nu₂, independently, has the formula:



wherein

Bx is a heterocyclic base moiety;

Lx is hydrogen, a protecting group or a substituent group;

one of R₁₂, R₁₃ and R₁₄ is hydroxyl, a protected hydroxyl, a covalent attachment to a solid support, a nucleoside, an oligonucleoside, a nucleotide, an oligonucleotide, a conjugate group or an optionally protected substituent group ;

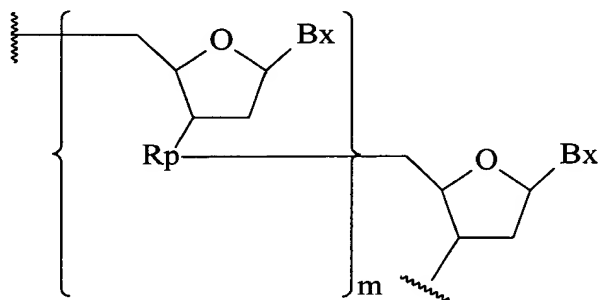
another of R₁₂, R₁₃ and R₁₄ is hydrogen, hydroxyl, a protected hydroxyl or an optionally protected substituent group;

the remaining of R₁₂, R₁₃ and R₁₄, of Nu₁, is L₁;

the remaining of R₁₂, R₁₃ and R₁₄, of Nu₂, is L₂;

each L_1 and each L_2 is, independently, a phosphodiester, phosphorodithioate; chiral S_p phosphorothioate; phosphoramidate; thiophosphoramidate; phosphonate; methylene phosphonate; phosphotriesters; thionoalkylphosphonate; thionoalkylphosphotriester; boranophosphate; boranothiophosphate; thiodiester; thionocarbamate; siloxane; carbamate; sulfamate; morpholino sulfamide; sulfonamide; sulfide; sulfonate; N,N' -dimethylhydrazine; thioformacetal; formacetal; thioketal; ketal; amine ($-NH-CH_2-CH_2-$); hydroxylamine; hydroxylimine; hydrazinyl; amide ($-CH_2-N(JJ)-C(O)-$) and ($-CH_2-C(O)-N(JJ)-$); oxime ($-CH_2-O-N=CH-$); or alkylphosphorus ($-C(JJ)_2-P(=O)(OJJ)-C(JJ)_2-C(JJ)_2-$) internucleoside linkage, wherein each JJ is, independently, hydrogen or C_1 to C_{10} alkyl wherein at least one of L_1 and L_2 is other than phosphodiester;

Y has the formula:



wherein:

each R_p is a chiral R_p phosphorothioate internucleotide linkage; and

each n , m and p is, independently, from 1 to 100; where the sum of n , m and p is from 3 to about 200;

wherein the oligomeric compound comprises from 5 to about 50 nucleosides.

24. (Original) The oligomeric compound of claim 23 wherein at least one Nu₁ or at least one Nu₂ comprises a substituent group.

25. (Original) The oligomeric compound of claim 24 wherein at least one Nu₁ and at least one Nu₂ independently comprise a substituent group.

26. (Original) The oligomeric compound of claim 23 wherein each Nu₁ and each Nu₂ independently comprises a substituent group.

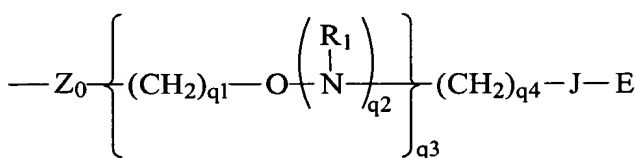
27. (Original) The oligomeric compound of claim 24 wherein said substituent group is covalently attached to the 2', 3' or 5'-position of said Nu₁ or Nu₂.

28. (Original) The oligomeric compound of claim 27 wherein said substituent group is covalently attached to the 2'-position of said Nu₁ or Nu₂.

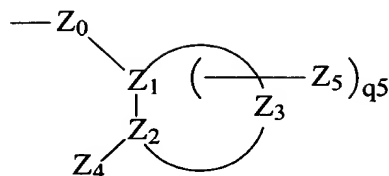
29. (Original) The oligomeric compound of claim 23 wherein each of said substituent groups is, independently, C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₅-C₂₀ aryl, O-alkyl, O-alkenyl, O-alkynyl, O-alkylamino, O-alkylalkoxy, O-alkylaminoalkyl, O-alkyl imidazole, thiol, S-alkyl, S-alkenyl, S-alkynyl, NH-alkyl, NH-alkenyl, NH-alkynyl, N-dialkyl, O-aryl, S-aryl, NH-aryl, O-aralkyl, S-aralkyl, NH-aralkyl, N-phthalimido, halogen keto, carboxyl, nitro, nitroso, nitrile, trifluoromethyl, trifluoromethoxy, imidazole, azido, hydrazino, hydroxylamino, isocyanato, sulfoxide, sulfone, sulfide, disulfide, silyl, heterocycle, carbocycle, polyamine,

polyamide, polyalkylene glycol, and polyether;

or each substituent group has one of formula I or II:



I



II

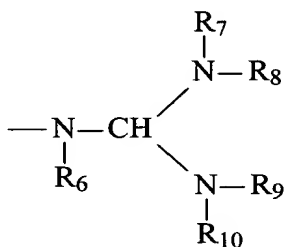
wherein:

Z_0 is O, S or NH;

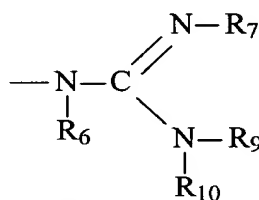
J is a single bond, O or C(=O);

E is C_1 - C_{10} alkyl, $N(R_1)(R_2)$, $N(R_1)(R_5)$, $N=C(R_1)(R_2)$, $N=C(R_1)(R_5)$ or has one of formula

III or IV;



III



IV

each R_6 , R_7 , R_8 , R_9 and R_{10} is, independently, hydrogen, $C(O)R_{11}$, substituted or unsubstituted C_1 - C_{10} alkyl, substituted or unsubstituted C_2 - C_{10} alkenyl, substituted or unsubstituted C_2 - C_{10} alkynyl, alkylsulfonyl, arylsulfonyl, a chemical functional group or a conjugate group, wherein the substituent groups are selected from hydroxyl, amino, alkoxy, carboxy, benzyl, phenyl, nitro, thiol, thioalkoxy, halogen, alkyl, aryl, alkenyl and alkynyl;

or optionally, R_7 and R_8 , together form a phthalimido moiety with the nitrogen atom to

which they are attached;

or optionally, R₉ and R₁₀, together form a phthalimido moiety with the nitrogen atom to which they are attached;

each R₁₁ is, independently, substituted or unsubstituted C₁-C₁₀ alkyl, trifluoromethyl, cyanoethyloxy, methoxy, ethoxy, t-butoxy, allyloxy, 9-fluorenylmethoxy, 2-(trimethylsilyl)-ethoxy, 2,2,2-trichloroethoxy, benzyloxy, butyryl, iso-butyryl, phenyl or aryl;

R₅ is T-L,

T is a bond or a linking moiety;

L is a chemical functional group, a conjugate group or a solid support material;

each R₁ and R₂ is, independently, H, a nitrogen protecting group, substituted or unsubstituted C₁-C₁₀ alkyl, substituted or unsubstituted C₂-C₁₀ alkenyl, substituted or unsubstituted C₂-C₁₀ alkynyl, wherein said substitution is OR₃, SR₃, NH₃⁺, N(R₃)(R₄), guanidino or acyl where said acyl is an acid amide or an ester;

or R₁ and R₂, together, are a nitrogen protecting group or are joined in a ring structure that optionally includes an additional heteroatom selected from N and O;

or R₁, T and L, together, are a chemical functional group;

each R₃ and R₄ is, independently, H, C₁-C₁₀ alkyl, a nitrogen protecting group, or R₃ and R₄, together, are a nitrogen protecting group;

or R₃ and R₄ are joined in a ring structure that optionally includes an additional heteroatom selected from N and O;

Z₄ is OX, SX, or N(X)₂;

each X is, independently, H, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C(=NH)N(H)R₅, C(=O)N(H)R₅,

or $\text{OC}(=\text{O})\text{N}(\text{H})\text{R}_5$;

R_5 is H or $\text{C}_1\text{-C}_8$ alkyl;

Z_1 , Z_2 and Z_3 comprise a ring system having from about 4 to about 7 carbon atoms or having from about 3 to about 6 carbon atoms and 1 or 2 hetero atoms wherein said hetero atoms are selected from oxygen, nitrogen and sulfur and wherein said ring system is aliphatic, unsaturated aliphatic, aromatic, or saturated or unsaturated heterocyclic;

Z_5 is alkyl or haloalkyl having 1 to about 10 carbon atoms, alkenyl having 2 to about 10 carbon atoms, alkynyl having 2 to about 10 carbon atoms, aryl having 6 to about 14 carbon atoms, $\text{N}(\text{R}_1)(\text{R}_2)$ OR_1 , halo, SR_1 or CN;

each q_1 is, independently, an integer from 1 to 10;

each q_2 is, independently, 0 or 1;

q_3 is 0 or an integer from 1 to 10;

q_4 is an integer from 1 to 10;

q_5 is from 0, 1 or 2; and

provided that when q_3 is 0, q_4 is greater than 1.

30-34. (Canceled).

35. (Original) The oligomeric compound of claim 23 wherein at least one R_{14} is L_1 or L_2 .

36. (Original) The oligomeric compound of claim 23 wherein at least one R_{14} is L_1 and

at least one R_{14} is L_2 .

37. (Canceled).

38. (Original) The oligomeric compound of claim 23 comprising from 8 to about 30 nucleosides.

39. (Original) The oligomeric compound of claim 23 comprising from 15 to about 25 nucleosides.

40 - 44. (Canceled).